

# Stan A. Huber Consultants, Inc.

Health Physics and Radiation Safety Services

200 North Cedar Road - New Lenox, Illinois 60451-1751 - (800) 383-0468 or (815) 485-6161 - FAX (815) 485-4433 - Email sahci@sahci.com - Home Page www.sahci.com

March 3, 2018

Michael Mikaitis Aldridge Electric, Inc. 844 E Rockland Rd. Libertyville, IL 60048

RE: 400-479 N. McClurg Ct. Thorium Monitoring 2/26/18 – 2/27/18

CDOT Permit #903944

Dear Mr. Mikaitis:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation and installation of street lighting at 400-479 N. McClurg Ct. in Chicago, Illinois. The monitoring was performed by Brian Schmidt, SAHCI Health Physics Technician, on February 26 and 27, 2018.

#### Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 126496) with attached Ludlum Model 44-10 2"x2" Nal detector (w/ 6" collimated lead shield). The instrument was calibrated on October 11, 2017. The USEPA action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,366 counts per minute (cpm).

The background count rate for this location was found to average 1,833 cpm.

#### Soil Gamma Scans

Survey data was collected on by scanning the spoils generated at the 4 light pole locations and recording the highest count rate at each 18-inch interval. The maximum depth of the light pole excavations was 6 feet below ground surface. Directional boring was used to connect the different light poles. No spoils were generated during the direction boring process.

The maximum gamma count rate for each excavation interval was recorded on the attached Radiation Survey Form. The count rates in the excavations ranged from 1,700 cpm to 3,900 cpm. No count rates were found at any time that exceeded the threshold limit of 7,366 cpm.

### Additional Monitoring

Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

## Regulatory Notification of Survey Completion

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, as required.

Thank you for your assistance with this project. If you have any questions or need additional information, please call me at (815) 485-6161.

Sincerely,

Stan A. Huber Consultants, Inc.

Call He

Glenn Huber, CHP

President

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| Radiation Survey Form  |  |  |
|--|--|--|
| Location/ Project ID: ALDRIGGE - STREET LIGHT INSTRUMTION - Mc CWASET CHICASO, IL-ROS RAG SURVEY |  |  |
|  | Date: 2/26-27/2018   | Technician: BLIAN SCYMIOT  |
|  | Inst Model: (LUDLUM - 2221   | Serial No.: 126496   |
|  | Probe Type: 1"x1" Nal / (2"x2" Nal Shielded / Not Shielded   | Lift Elevation: O-72"  |
|  | Background 1833 cpm  | Action Level: 7366cpm  |
|  | Write grid designations in circles. Record highest cou<br>at grid intersections (if required). Shade areas of eleva- | nts for grid in cpm. Record 30 second counts ated counts and record max cpm. |
|  |  | Cwast.   |
|  | 132'   /(l'  | 71'  |
| TLLINOIS ST.   | 7 I I I I I I I I I I I I I I I I I I I  | 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1                                     |
| J.L.IN   | LIGHT POLES STANGO TO A  | DEPTY STREET STREET  |
|  | 0F6' 635   |  |
| List   | TO DEPTH CPM   | - EXCAUTIONS PERFORMED AT LUCATIONS WHERE COTTONS WERE ENCONTERED            |
|  | 2 0-18, 5400   | ENCONTERED   |
|  | 18-31 7400<br>36-54, 570   | - DIRECTIONAL PRIMINE PRODUCED   |
|  | 72-72 22.00<br>72-90" 23.00  | NO SOIL SPOILS BETWEEN   |
|  | 3 5-18" 28cm   | LIGHT PULS CUPATIONS   |
|  | Dring Spiles 2500 (6'69  |  |
|  | (8-36" 2000<br>18-36" 2000   |  |

